

1 ABSTRACT OF THE DISCLOSURE

2 A method of establishing wireless communications between an interrogator
3 and individual ones of multiple wireless identification devices, the method
4 comprising utilizing a tree search method to attempt to identify individual ones
5 of the multiple wireless identification devices so as to be able to perform
6 communications, without collision, between the interrogator and individual ones
7 of the multiple wireless identification devices, a search tree being defined for
8 the tree search method, the tree having multiple nodes respectively representing
9 subgroups of the multiple wireless identification devices, wherein the interrogator
10 transmits a command at a node, requesting that devices within the subgroup
11 represented by the node respond, wherein the interrogator determines if a
12 collision occurs in response to the command and, if not, repeats the command
13 at the same node. An interrogator configured to transmit a command at a
14 node, requesting that devices within the subgroup represented by the node
15 respond, the interrogator further being configured to determine if a collision
16 occurs in response to the command and, if not, to repeat the command at the
17 same node.